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REMARKS

This paper is being presented in response to the non-final official action dated June 28, 2006, wherein: (a) claims 1-43 were pending; (b) claims 14-19 were rejected under 35 U.S.C. § 102(b) as anticipated by Miller et al., U.S. Patent 5,489,331 ("Miller"); (c) claims 1, 3, 5-8 and 42 were rejected under 35 U.S.C. § 103(a) as obvious over Wang, U.S. Patent 5,649,999 ("Wang") in view of Kawashima, U.S. Patent 4,907,903 ("Kawashima"); (d) claims 2, 9, 12 and 13 were rejected under 35 U.S.C. § 103(a) as obvious over Wang in view of Miller; (e) claims 20-22, 24-34, 36-41 and 43 were rejected under 35 U.S.C. § 103(a) as obvious over Wang in view of Kawashima and further in view of Miller; and, (f) claims 4, 11, 23 and 35 were rejected under 35 U.S.C. § 103(a) as obvious over Wang in view of Kawashima in further view of Doi et al., U.S. Patent 6,378,999 ("Doi").

Reconsideration and withdrawal of the rejections are respectfully requested in view of the foregoing amendments and following remarks.

An explicit basis for the rejection of claim 10 was not provided by the examiner in the official action. In view of this omission, applicants respectfully submit that any subsequent official action first rejecting claim 10 in this application must be made non-final.

I. Brief Summary of the Amendments

A. Amendments to the Specification

The specification has been amended to correct typographical errors. No new matter has been added by these amendments.

B. Amendments to the Claims

Claims 1, 3, 5, 10, 18-20, 22, 24, 28-34, and 37-41 have been amended to address matters of form. No change in claim scope is intended or effected by these amendments.

Claim 33 has also been amended to recite "an optional base, and a stabilizer." Claim 9 has been similarly amended. Support for these amendments may be found, for example, at page 4, lines 14-16.

Claim 14 has been amended to alternatively incorporate the viscosity features of claims 18 and 19.

Claim 20 has been amended to recite that "the dye changes color as the volatile base evaporates." Support for this amendment may be found, for example, in original claim 1.

Claim 41 has also been amended to positively recite the features of the eradicating fluid of claim 1.

No new matter has been added by the foregoing amendments.

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II. The 35 USC § 102(b) Rejection Is Traversed

Claims 14-19 were rejected under 35 U.S.C. § 102(b) as anticipated by Miller. See pp. 2-3 of the action.

A. Proper Basis for a § 102(b) Rejection

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). "To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities." *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999); see also MPEP § 2112.

B. The § 102(b) Rejection Is Traversed

Claim 14 recites that "the ink has a viscosity in a range selected from the group consisting of about 1 cP to about 3 cP and about 1 kCp to about 3 kCp," and Miller does not disclose this limitation.

Miller is directed to color changing compositions using acids and an ink system including the compositions. More specifically, Miller discloses an undercolor composition whose dye is rendered colorless in the presence of an acid, and an overcolor composition with sufficient acid to render the undercolor composition colorless while simultaneously being capable of making a written mark (having a new color) when deposited over the undercolor composition. See Miller abstract.

Miller does not disclose or suggest either of the viscosity ranges recited in claim 14. Moreover, there is no evidence that "the missing descriptive matter is necessarily present . . . in the reference." In fact, in Examples 5-10 (i.e., overcolor compositions containing phosphoric acid), Miller expressly discloses viscosities ranging from 3.5 cP to 4.5 cP (i.e., entirely *outside* the claimed ranges). Miller, col. 11, lines 2-7. Therefore, Miller does not expressly or inherently disclose all recited features of claims 14-19.

Accordingly, it is requested that the § 102(b) rejection of claims 14-19 be withdrawn.

III. The 35 USC § 103(a) Rejection Is Traversed

Claims 1-13 and 20-43 were rejected under 35 U.S.C. § 103(a) as obvious over various combinations of Wang, Kawashima, Miller, and Doi. See pp. 3-9 of the action.

A. Proper Basis for a § 103(a) Rejection

To establish a *prima facie* case of obviousness, the PTO must satisfy three basic criteria. First, the combined disclosure of the prior art references must teach or suggest all of

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the claim limitations. Second, there must be some suggestion or motivation to modify or combine the teachings in the art to make the precise combination recited in the claims. Finally, a person having ordinary skill in the art must have a reasonable expectation of success when combining or modifying the disclosures of the references. The suggestion or motivation to make the claimed invention and the reasonable expectation of success must both be derived from the prior art, and not from the application's disclosure. See MPEP §§ 2142-43.

B. The § 103(a) Rejections Are Traversed

**1. Combination of Wang and Kawashima
(Claims 1, 3, 5-8, and 42)**

Claims 1, 3, 5-8, and 42 recite fluids including a volatile base, a pH sensitive dye, and an eradicating agent, wherein the dye changes color as the volatile base evaporates.

Wang is directed to an ink eradicator system including an eradicator fluid. The eradicator fluid includes a non-volatile amine to decolorize a triaryl methane dye marking that is already on a substrate. Wang, col. 3, lines 17-19. In its proposed combination of Wang and Kawashima, the action cites Wang's optional feature of a pH buffer used to maintain the eradicator fluid at a pH between 11 and 12. See p. 4 of the action (citing Wang, col. 3, lines 56-60).

Kawashima is directed to an appearing/disappearing ink system. In the disclosed system, a pH-indicator, which is invisible in its normal state, is applied to a surface to make a series of invisible markings. Kawashima, col. 1, lines 9-10 and col. 2, lines 17-33. Disclosed pH-indicators include cresolphthalein, thymolphthalein, and phenolphthalein. Kawashima, col. 2, lines 22-23. An additional composition containing a pH-adjusting agent (i.e., in a composition separate from the pH-indicator) is used to cause the invisible markings to temporarily reappear when the pH-adjusting agent is applied to the markings. Kawashima, col. 1, lines 50-55 and col. 3, lines 9-12. The disclosed pH-adjusting agents include volatile amines. Kawashima, col. 3, lines 19-26.

The action asserts that it would have been obvious to use the pH-indicator and the pH-adjusting agent of Kawashima in the eradicator fluid of Wang to arrive at the claimed combination recited in claims 1, 3, 5-8, and 42. See p. 4 of the action. As support for the combination, the action cites Wang's disclosure that "other conventional ingredients such as bactericides, thickeners, and colorants can be included in the ink or the eradicator fluid." See p. 4 of the action (citing Wang, col. 4, lines 11-13).

However, there is no motivation to combine the teachings of Wang and Kawashima in the manner suggested. As a preliminary matter, Wang's teaching of "other *conventional* ingredients" (emphasis added) does not disclose or suggest to one of ordinary skill to include

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volatile amine bases in the eradicating fluid. Additionally, Kawashima is directed to a system that causes an invisible mark to temporarily appear, while the claimed composition is directed to a system that causes a visible mark to disappear. Thus, there is no motivation to use the teachings of Kawashima to arrive at the claimed invention. Nor is there any suggestion that the pH-indicator and the pH-adjusting agent of Kawashima are ever in the same initial composition, inasmuch as the two components must be separate for the ink system of Kawashima to operate as intended. Thus, the skilled artisan would not have had any motivation to modify Wang in view of Kawashima as asserted by the action.

Additionally, if Wang and Kawashima were combined as proposed in the action, the resulting combination would neither be operative nor teach or suggest all claimed limitations of claims 1, 3, 5-8, and 42. Specifically, the proposed combination includes a non-volatile pH buffer that maintains the pH between 11 and 12. See Wang, col. 3, lines 56-60 and col. 4, lines 52-55 (indicating that the buffer contains the non-volatile basic constituent sodium hydroxide). All of the pH-indicators disclosed by Kawashima fade at pH values less than 8.6. Kawashima, cols. 11-12 (Table 1). Thus, the pH of the proposed combination is high enough such that, even after the incorporation and evaporation of Kawashima's volatile amine, the pH-indicator retains its color, contrary to both its intended purpose (see MPEP 2143.01(V)) and the recited limitation that "the dye changes color as the volatile base evaporates."

Thus, no *prima facie* case of obviousness exists for claims 1, 3, 5-8, and 42 for at least these reasons. Accordingly, reconsideration and withdrawal of the § 103(a) rejection of claims 1, 3, 5-8, and 42 are requested.

2. Combination of Wang and Miller (Claims 2, 9, 12, and 13)

Claim 2 depends from claim 1 and additionally recites that the ink eradicating fluid further includes a stabilizer selected from the group consisting of sodium perborate (BNaO_3), ethylenediaminetetraacetic acid (EDTA), and mixtures thereof.

Claims 9, 12, and 13 recite a fluid including an eradicating agent, an optional base, and a stabilizer selected from the group consisting of sodium perborate (BNaO_3), ethylenediaminetetraacetic acid (EDTA), and mixtures thereof.

Wang and its deficiencies relative to the claimed invention is discussed above. Specifically, Wang does not disclose a pH-sensitive dye in its eradicating fluid, nor does it disclose a volatile base.

Miller is discussed above. Miller further discloses that stabilizing bases such as monosodium EDTA can be included in its undercolor composition. Miller, col. 7, lines 58-60. The undercolor composition contains the colorant to be eradicated upon application of the overcolor composition (which contains the eradicating agent). Miller, col. 1, lines 20-26.

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The action asserts that it would have been obvious to use the stabilizing agents of Miller in the composition of Wang based on Wang's teaching that "conventional ingredients" can also be included. See p. 5 of the action.

Regarding claim 2, neither Wang nor Miller discloses or suggests including a volatile base or a pH-sensitive dye in its eradicating fluid (i.e., as recited in claim 1). Such a composition is contrary to the teachings of Wang (as discussed above). Further, Miller does not disclose or contemplate a composition that changes color. Thus, the proposed combination does not teach or suggest all claimed features. Accordingly, reconsideration and withdrawal of the § 103(a) rejection of claim 2 are requested.

Regarding claim 9, there is no motivation to combine the teachings of Wang and Miller in the manner suggested. In fact, Miller teaches away from the proposed combination. Specifically, the eradicating fluid of Wang does not contain a stabilizer, and Miller merely discloses adding a stabilizer to the composition containing its eradicable ink (i.e., the undercolor composition), not to the composition containing its eradicating agent (i.e., the overcolor composition). Furthermore, Miller teaches away from the proposed combination because it suggests that the stabilizing base should be in the ink composition, and not in the eradicating fluid. According to Miller's disclosed purpose of the stabilizing agent, the skilled artisan would not be motivated to use the stabilizing agent in an eradicating fluid:

The stabilizing base comprises a base which keeps the undercolor coloring composition at a pH of from about 7.0 to about 8.5. At the elevated pH, the colorant in the undercolor coloring composition remains stable after it is applied to a substrate. The undercolor colorant will not be destroyed until the overcolor coloring composition is applied over the undercolor coloring composition.

Miller, col. 7, lines 53-57. Because the only purpose of Miller's stabilizing base is to maintain the color of the applied mark *until* the eradicating fluid is applied, the skilled artisan would not be motivated to use the stabilizing agent in the composition comprising the eradicating agent.

Thus, no *prima facie* case of obviousness exists for claims 9, 12, and 13 for at least these reasons. Accordingly, reconsideration and withdrawal of the § 103(a) rejection of claims 9, 12, and 13 are requested.

3. Combination of Wang, Kawashima, and Miller (Claims 20-22, 24-34, 36-41, and 43)

Claims 20-22, 24-34, 36-41, and 43 each recite all of the features of either claim 1, 9, or 42.

The deficiencies of Wang, Kawashima, and Miller are discussed above.

The deficiencies of the combination of Wang and Kawashima were discussed above in relation to claims 1, 3, 5-8, and 42. Miller fails to remedy these deficiencies.

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The deficiencies of the combination of Wang and Miller were discussed above in relation to claims 9, 12, and 13. Kawashima fails to remedy these deficiencies.

Thus, no *prima facie* case of obviousness exists for claims 20-22, 24-34, 36-41, and 43 for at least the reasons discussed above. Accordingly, reconsideration and withdrawal of the § 103(a) rejection of claims 20-22, 24-34, 36-41, and 43 are requested.

**4. Combination of Wang, Kawashima, and Doi
(Claims 4, 11, 23, and 35)**

Claims 4, 11, 23, and 35 each recite the resin polyethyleneimine as component of the ink eradicating fluid.

Doi is directed to an aqueous ink jet recording liquid and recording method. Doi is cited by the action for allegedly teaching the equivalence of polyethylenimine and polyacrylic acid. See pp. 8-9 of the action.

Regardless of whether polyethyleneimine and polyacrylic acid are art-recognized equivalents, Doi fails to remedy the underlying deficiencies of Wang and Kawashima discussed above in relation to claims 1, 3, 5-8, and 42.

Thus, no *prima facie* case of obviousness exists for claims 4, 11, 23, and 35 for the same reasons discussed above. Accordingly, reconsideration and withdrawal of the § 103(a) rejection of claims 4, 11, 23, and 35 are requested.

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CONCLUSION

In view of the foregoing, entry of the amendments to claims 1, 3, 5, 9, 10, 14, 18-20, 22, 24, 28-34, and 37-41 reconsideration and withdrawal of the rejections, and allowance of all pending claims 1-43 are respectfully requested.

Should the examiner wish to discuss the foregoing, or any matter of form or procedure in an effort to advance this application to allowance, the examiner is urged to contact the undersigned attorney.

Respectfully submitted,

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